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## REQUEST **FOR** CONTINUED EXAMINATION (R TRANSMITT/AL Mail Stop RCE Commissioner for Patents

Application Number 10/014,977 Filing Date 12/10/2001 First Named Inventor Webber Group Are Unit 3736 Examiner Name Nasser, R. Attorney Docket Number 147117-100002

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant

does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).				
a.	$\boxtimes$	Previously submitted. If a final Office action is outstand considered as a submission even if this box is not check	ding, any amendments filed after the final Office action may be cked.	
	i.	Consider the arguments in the Appeal Brief or Re	eply Brief previously filed on March 4, 2004	
	ii.	Other Amendment After Final filed on Janu	ary 9, 2004	
b.	$\boxtimes$	Enclosed	NOL MA	
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	ii.	Affidavit(s)/Declarations(s) iv	v. Other	
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This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the publish which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated of the complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending up-this individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this burden, should be sent to the complete this form and/or suggestions for reducing this purchase. On the complete this form and/or suggestions for reducing this purchase the complete this form and/or suggestions for reducing this purchase.				

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## Patent 147117-100002 N THE UNITED STATES PATENT AND TRADEMARK OFFICE tion No.: 10/014,977 Confirmation No. 3321 Applicant: Michael Webber Filed: December 10, 2001 TC/AU: 3736 Examiner: R. Nasser Docket No. 147117-100002 TECHNOLOGY CENTER ASTOR RECEIVED 7005 Customer No. 34026 Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 MAR 0 7 2005 REQUEST FOR CONTINUED EXAMINATION (RCE) OFFICE OF PETITIONS **REPLY UNDER 37 C.F.R. 1.111** Applicant here submits the following arguments made in an Appeal Brief filed on March 3, 2004 pursuant to 37 C.F.R. § 706.07(h), first and second paragraphs. The threshold concentration is the separation point between non-alveolar breath and alveolar

oreath (see Figure 2). As stated at page 9, claims 18-21, the threshold varies from person to person,
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(37 C.F.R. §1.8a)
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and for CO<sub>2</sub> ranges from 3.5 to 5.5 percent. Claims 13, 25 and 36 describe a method where the threshold for measuring a second gas concentration is carried out when the first gas concentration is at least 3.5 percent. Claims 6, 14, 26 and 37 describe a method where the threshold is at least 4.5 percent. Thus, both of these thresholds are within the normal CO<sub>2</sub> threshold range. And these claimed preferred thresholds of 3.5 and 4.5 percent are clearly supported by the specification. See page 6, lines 5-7:

Where carbon dioxide is the first component, the threshold concentration preferably includes relative concentrations equal to or greater than 3.5%, and more preferably equal to or greater than 4.5%.

At pages 11-12 of the specification, paragraph 0032 describes that a threshold concentration level may be static, where the threshold is set and left at that level for subsequent breaths, or variable dependent on the concentration of the concentration profile of a previously expired breath. An example of a variable threshold is given where the highest concentration of CO<sub>2</sub> was measured at 5.5%, and the threshold was adjusted to 5.0%.

The Examiner states that the specification lacks support for claims 5-6, 13-14, 25-26, and 36-37 because:

In the instance where, for some reason, the previous breath's highest level was 3% of [sic] below or the lowest level was 2.5% or below, the updated threshold would be 3% or below. [Emphasis added.]

As previously pointed out, the Appellant's specification has disclosure support for thresholds of 3.5% and 4.5% at page 6, lines 5-7. 35 U.S.C. § 112, first paragraph, requires that the specification describe the invention. The invention of claims 5-6, 13-14, 25-26 and 36-37 is described in Appellant's disclosure. A threshold of 3.0 or below, referred to by the Examiner, is not claimed by claims 5-6, 13-14, 25-26 and 36-37. It is submitted that there is support for the invention of claims 5-6, 13-14, 25-26 and 36-37 as required by 35 U.S.C. § 112, first paragraph.

Moreover, it is submitted the Examiner's hypothetical factual situation is unjustified. Given that the normal threshold of CO<sub>2</sub> concentration between non-alveolar breath and alveolar is 3.5 to 5.5%, the highest CO<sub>2</sub> level is, by definition, above the threshold, and thus must be higher than 3.5%. So, a threshold of 3% or below proposed as a possibility by the Examiner would be well outside the normal range. It is submitted that not only is the Examiner's position unsupported by the legal requirements of 35 U.S.C. § 112, it is based on a hypothetical that is contrary to the generally accepted biology that demonstrates that the highest level of CO<sub>2</sub> is above the 3.5 to 4.5% threshold level of concentration.

## A. 35 U.S.C. § 103 Rejection of All Claims

All of the claims have been rejected on obvious grounds based on the combination of a number of references. For example, claims 30 and 41 stand rejected as obvious based on combining the following five references:

- 1. Gustafsson et al., U.S. Patent No. 6,038,913 combined with
- 2. Kiefer, U.S. Patent No. 3,830,630 combined with
- 3. Forrester et al., U.S. Patent No. 5,376,555 combined with
- 4. Culver, U.S. Patent No. 5,445,160 combined with
- 5. Grafton, U.S. Patent No. 6,192,261.

It is submitted that the fact that the Examiner relies on a combination of five references is itself indicative of nonobviousness.

It is believed that the Examiner has been forced to rely on so many references, because each individual reference has an admitted lack of teaching of critical features of Appellant's claimed invention. For example,

- Gustafsson "does not teach a method of ensuring that only alveolar breath components are measured" (October 9, 2003 Final Rejection, sentence bridging page 4 and 5).
- The Kiefer and Forrester combination "does not base the trigger threshold on previous measurements" (October 9, 2003 Final Rejection, page 4, lines 3-4).
- Kiefer "does not have optical or spectrophotometric measurements" (June 5, 2003 Office Action, page 2, last paragraph).
- The Forrester and Kiefer combination "does not multiplex the optical signals" (June 5, 2003 Office Action, page 3, lines 3-4).

In addition to these admitted deficiencies in the cited prior art, it is not disputed that:

- Culver does not measure two components of breath, it simply detects a gas in breath to determine if the patient has stopped breathing.
- Grafton does not measure two components of breath either. Indeed, it does not analyze any gas in breath, and is cited by the Examiner to show a multiplexer.

While there is a single basis for an obvious rejection of claims 30 and 41, other rejected claims are rejected on alternate theories and various combinations of the five references cited above. For example, claims 20-22, 24-26, 29-30, 32-34, 36-37, 39 and 41-42 were rejected under 35 U.S.C. § 103 based on four different combinations of references:

- (a) Kiefer plus Forrester plus Culver;
- (b) Kiefer plus Forrester plus Culver plus Grafton;
- (c) Gustafsson plus Kiefer plus Forrester plus Culver; and
- (d) Gustafsson plus Kiefer plus Forrester plus Culver plus Grafton.

It is believed that it is not necessary to address each basis of rejection for each group of claims because all of the rejections share what is believed to be a common flaw in that they all are based on the Examiner's contention at page 4 of the October 9, 2003 Final Rejection that:

it would have been obvious to modify the above combination (Kiefer and Forrester) to update the threshold based on previous measurements in order to allow the device to be fine tuned to each patent (Culver).

There is no suggestion to make such a combination of the Kiefer, Forrester and Culver references (common to all of the Examiner's § 103 rejections). Indeed, the references teach against such combination "to update the threshold."

In Kiefer, the threshold is fixed at 4.5%:

filament 17 is **purposely designed** so that a 4-1/2% CO<sub>2</sub> content in the breath sample causes filament 17 to unbalance the bridge of which it is a part . . . . (col. 4, l. 13-15)

Thus, there is no teaching in Kiefer that the device "purposely designed" to have a fixed, static threshold of 4.5 could be modified to measure alveolar breath "based on the concentration of the first component in a previously expired breath" as disclosed and claimed by Appellant.

If the threshold were to be changed in Kiefer based on previously expelled breath, filament branch 17, specifically designed for a 4.5 threshold, would have to be removed and replaced by another filament in the electrical balance bridge capacitor between patient breaths. Stated differently, the suggested combination would render Kiefer inoperative.

Similarly, Forrester discloses a "predetermined threshold" (col. 5, l. 51). Forrester uses thermopile infrared detectors for measuring gas analysis, but notes that the filament sensor of Kiefer could also be used (col. 6, l. 19-23). So again, Forrester teaches a fixed predetermined threshold, and contains no suggestion that it be combined with Culver.

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In re Dembiczak, 175 F.3d 544, 1560, 50 U.S.P.Q. 2d 1617 (Fed. Cir. 1999) involved an appeal of the rejection under § 103 of claims directed to plastic trash bags with a pumpkin face. The § 103 obviousness rejection was based on a combination of children's art references (Holiday and Shapiro) and conventional trash bag references. In reversing, the Federal Circuit noted that the portion of § 103 heading "at the time the invention was made" guards against entry into the "tempting but forbidden zone of hindsight". *Id.* at 998 (citations omitted). Specifically, the Federal Circuit noted that:

The Board's decision is limited to a discussion of the ways that the multiple prior art references can be combined to read on the claimed invention. . . . This reference-by-reference, limitation-by-limitation analysis fails to demonstrate how the Holiday and Shapiro references teach or suggest their combination with convention trash or lawn bags to yield the claimed invention. *Id.* at 1000.

And see, *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1354, 60 U.S.P.Q. 2d 1001 (Fed. Cir. 2001) holding that:

[I]f references taken in combination would produce a "seemingly inoperative device", we have held that such references teach away from the combination and thus cannot serve as predicates for a *prima facie* case of obviousness. (Citations omitted).

It is respectfully submitted that Appellant's claims have been rejected based on entry into the forbidden zone of hindsight. There is no suggestion that the references be combined, and indeed they teach against their combination.

It is submitted that the foregoing arguments respond to the outstanding Final Rejection.

Attorney for applicant was confused by the Advisory Action mailed January 27, 2004 that has all of the claims listed as allowed. Upon receiving a docketing statement from the Board indicating that a reply brief and request for oral hearing were not filed (because attorney for applicant thought the

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case to be allowed), attorney for applicant noticed an arrow on the Advisory Action that he now understands was meant by the Examiner to indicate the claims were not allowed. Accordingly, continued examination is requested.

Respectfully submitted

**JONES DAY** 

Date: February 23, 2005

By Gold Carls

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